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THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Carl Pinsky
Appl'n. No. : 09/493,686
Filed : January 28, 2000
Title : DETECTION OF PROPAGATING ELECTROMAGNETIC WAVES BY MAGNETOMETRY
Grp./A.U. : 2862
Examiner : Gerard R. Strecker
Docket No. : 9029-6 MIS/jb
Date : February 26, 2003

BY COURIER

The Commissioner of Patents
and Trademarks,
Box Amendment
Washington, D.C. 20231,
U.S.A.

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TECHNOLOGY CENTER 2800

AMENDMENT

Sir:

This Communication is submitted in response to the Office Action of September 3, 2002.

Petition is hereby made under the provisions of 37 CFR 1.136(a) for an extension of three months of the period for response to the Office Action. The prescribed fee for a Small Entity is enclosed.

The Examiner rejected claims 12 to 15 under 35 USC 101 on the basis that the disclosed invention is inoperative and lacks utility. Reconsideration is requested.

The applicants have found that a magnetometer is sensitive to radiation of all frequencies because any given electromagnetic wave comprises propagating electric and magnetic fields perpendicular to the direction of propagation and to each other. Radiation spontaneously emitted from all matter is detected. All

matter above absolute zero emits a range of frequencies, microwave being the predominant frequency.

The magnetic field sensitive probe is perturbed by the emitted radiation. It is axiomatic that radiation emitted spontaneously from matter, resulting from electron transitions, which are associated primarily with ultraviolet emissions; molecular vibratory transitions, associated primarily with microwave emissions; and molecular rotational transitions, associated primarily with infrared emissions.

due to ? { The data provided in applicants Examples and Figures clearly demonstrates the detection of radiation from substances, in the ground state, even in extremely small amounts. This data negates any suggestion that applicants invention lacks utility.

Accordingly, it is submitted that claims 12 to 15 define an operative invention and hence its rejection thereof under 35 USC 101 should be withdrawn.

The Examiner rejected claims 12 to 15 under 35 USC 102(b) as being anticipated by Hill.

The Hill reference describes the detection of chemicals in the exhaust of aircraft engines by obtaining a spectrum of two fairly narrow ranges. The emitted radiation derives from chemical compounds stimulated by heat and interaction with other physical and chemical agents in the exhaust medium.

As is clear from the specification, applicants detect radiation emitted from any chemical, even in extremely small amounts, and in the ground state, i.e. non-activated chemical. This procedure is not described in Hill et al.

Accordingly, it is submitted that claims 12 to 15 are not anticipated by Hill et al and hence the rejection thereof under 35 USC 102(b) as being anticipated by Hill et al, should be withdrawn.

The Examiner rejected claims 12 to 15 under 35 USC 102(b) as being anticipated by Schoenig et al (4,620,100) or Schoenig et al (4,620,099).

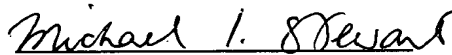
The Schoenig references describe detection of gamma radiation from incinerators by means of a specific gamma ray detector. The material is subject to neutron activation and, since nuclear disintegration is associated with gamma emission, various radioactive isotopes may be determined.

The procedure of the present invention detects radioactive material without the requirement of neutron activation. Applicants data shows that their device detects the very weak emitter, tritium, even when situated in containers. Applicants detect radiation emitted from any chemical, even in extremely small amounts, and in the ground state.

Accordingly, it is submitted that claims 12 to 15 are patentable over the applied prior art and hence the rejection thereof under 35 USC 102(b) as being anticipated by either of the Schoenig et al reference should be withdrawn.

It is believed that this application is now in condition for allowance and early and favourable consideration and allowance are respectfully solicited.

Respectfully submitted,


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